

WE CLAIM AS OUR INVENTION:

1. Switching equipment for a communication network, said communication network comprising:

5 an adjacent switching equipment which is connected to said switching equipment via connecting paths,

said connecting paths being divided into first connecting paths and second connecting paths, wherein, when a connection request is present, said switching equipment is only authorized for said first connecting paths for allocating a transmission channel for said connection request, and said adjacent switching equipment that is connected to said first switching equipment via a corresponding second connecting path is authorized for allocating a corresponding transmission channel for said second connecting paths, said switching equipment comprising:

15 a first storage for storing bits of information about said free or occupied resources of said first connecting paths;

a controller detecting, on a basis of said bits of information stored in said first storing means, a suitable first connecting path which provides sufficient resources for a desired connection, when a connection request is present; and

20 a second storage means for storing bits of information about said free or occupied resources of said second connecting paths,

said controller selecting one of said adjacent switching equipment on a basis of said bits of information stored in said second storage means when a suitable first connecting path could not be detected on a basis of said bits of information stored in said first storage given a presence of a connection request,

25 said one of the adjacent switching equipment being connected to said switching equipment via one of said second connecting paths which is more likely able to provide sufficient resources for said desired connection, and

said controller transmitting an inquiry message to said selected adjacent switching equipment for allocating a transmission channel for said desired connection.

2. Switching equipment according to claim 1, wherein said controller is fashioned such that it, subsequent to said detection of a suitable first connecting path, transmits bits of information about an allocated transmission channel for said desired connection and bits of information about said detected connecting path to said adjacent  
5 switching equipment, which is connected to said first switching equipment via said detected first connecting path.

3. Switching equipment according to claim 2, wherein said controller is fashioned such that it, when a first connecting path with resources that are sufficient for said connection request could not be detected, transmits said inquiry message for allocating a  
10 transmission channel for said desired connection to said adjacent switching equipment in a forward message without bits of information about said connecting path or said transmission channel.

4. Switching equipment according to claim 1, wherein said controller fashioned such that it, subsequent to said inquiry message to said adjacent switching equipment  
15 selected by said controller and subsequent to said allocation of a transmission channel via said adjacent switching equipment, renews said bits of information, which are stored in said second storage on a basis of a confirmation message of said adjacent switching equipment whereby said confirmation message comprises bits of information about said transmission channel allocated by said adjacent switching equipment, about resources occupied for said  
20 desired connection and about said second connecting path selected via said adjacent switching equipment.

5. Switching equipment according to claim 1, wherein said communication between said switching equipment and said adjacent switching equipment ensues via B-ISUP  
25 signalization messages.

6. Switching equipment according to claim 1, further comprising:  
a third storage for storing configuration data of said switching equipment, wherein said configuration data prescribe, regarding said switching equipment, which of said connecting paths connected to said switching equipment are first connecting paths, for which

said switching equipment is authorized for allocating a transmission channel when a connection request is present, and which of said connecting paths are second connecting paths, for which said switching equipment is not authorized, but for which a corresponding said adjacent switching equipment is authorized for allocating a transmission channel for said connection request.

7. Switching equipment according to claim 6, wherein said configuration data stored in said third storage prescribe to which said adjacent switching equipment said switching equipment is to detect a connecting path when a connection request is present.

8. Switching equipment according to claim 1, wherein said communication network is an ATM broadband communication network.

9. A method for using switching equipment in a communication network, said communication network comprising said switching equipment, adjacent switching equipment and connecting paths, said connecting paths connecting said switching equipment to said adjacent switching equipment,

said connecting paths comprising first connecting paths and second connecting paths, said switching equipment comprising a controller, a first storage, and a second storage,

said method comprising the steps of:

authorizing, by said switching equipment, an allocation of a transmission channel in response to a connection request only for said first connecting paths;

authorizing, by said adjacent switching equipment, an allocation of a transmission channel in response to a connection request only for said second connecting paths;

storing, by said first storage, bits of information about free or occupied resources of said first connecting paths;

detecting, by said controller, a suitable first connecting path based on said bits of information stored in said first storage which provides for desired connections, when a connection request for a desired connection is present;

storing, by said second storage, bits of information about free or occupied resources

of said second connecting paths;

when a suitable first connecting path could not be detected in said step of detecting a suitable first connecting path,

selecting, by said controller, an adjacent switching equipment on a basis of said bits of information stored in said second storage when a suitable first connecting path could not be detected in said step of detecting a suitable first connecting path;

transmitting, by said controller, an inquiry message to said selected adjacent switching equipment for allocating a transmission channel for said desired connection requested by said connection request; and

allocating a transmission channel for said desired connection.

10. The method of according to claim 9, further comprising the step of:

transmitting, by said controller subsequent to said step of detecting a suitable first connecting path, bits of information about said allocated transmission channel and bits of information about said detected first connecting path.

11. The method according to claim 10, wherein said inquiry message transmitted in said step of transmitting the inquiry message is transmitted as a forward message without bits of information about said connecting paths or said transmission channel.

12. The method according to claim 9, further comprising the step of:

renewing said bits of information stored in said second storage, by said controller subsequent to said step of transmitting an inquiry message and subsequent to said step of allocating a transmission channel, based on a confirmation message of said adjacent switching equipment, said confirmation message comprising bits of information about said transmission channel allocated by said adjacent switching equipment, about resources occupied for said desired connection, and about said second connecting path selected by said adjacent switching equipment.

13. The method according to claim 9, wherein communication between said switching equipment and said adjacent switching equipment ensues via B-ISUP signaling messages.

14. The method according to claim 9, wherein said switching equipment further comprises a third storage, said method further comprising the step of:

storing configuration data of said switching equipment by said third storage, wherein said configuration data comprise information about which of said connecting paths connected to said switching equipment are first connecting paths for which said switching equipment is authorized for allocating a transmission channel when a connection request is present, and which of said connecting paths are second connecting paths for which said switching equipment is not authorized, but for which an adjacent switching equipment is authorized for allocating a transmission channel for said connection request.

15. The method according to claim 14 wherein said configuration data further comprises information about which adjacent switching equipment said switching equipment is to detect a connection path when a connection request is present.

16. The method according to claim 9, wherein said communication network is an ATM broadband communication network.